

# Fibre Ropes for Mining, Industrial & Marine Applications







### Winchline Rope (UHMwPE)

### DONAGHYS

Donaghys Winchline is made from high strength UHMwPE (Ultra High Molecular weight Polyethylene) fibres which have a very low elongation of 4% at break, and a tenacity of up to 15 times that of steel rope.

Donaghys Winchline is eight times lighter and 70% stronger than steel wire rope. Coated with Donaghys Armorcoat, this winchline rope braid has high abrasion resistance and can be customised with covers and fittings to suit specific applications.

It's very light density allows the rope to float and it is very easy to handle in comparison to wire alternatives.

Range available: 1mm to 96mm. Sold by the metre.

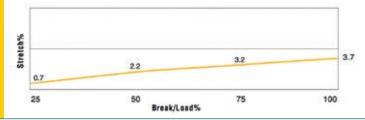
#### **Features**

- > 8 x Lighter and 70% stronger than steel wire rope
- > Low stretch
- > Unique pink colour for safety
- > High UV resistance
- > Floats and does not absorb water
- > High internal and external abrasion resistance
- > Virtually no recoil in the unlikely event of failure
- > Non rotational
- > Coated with Donaghys Armorcoat to reduce friction and abrasion
- > High performance abrasion/heat resistant jackets available on request.

#### **Applications**

- > Vehicle rescue line or winch line
- > Logging applications
- > Towing line
- > Pulling/stringing lines.

#### Stretch vs Break Load





As a steel wire replacement Donaghys winchline is lighter, safer and stronger - for mining applications, industries and marine.



## Winchline Rope (UHMwPE)



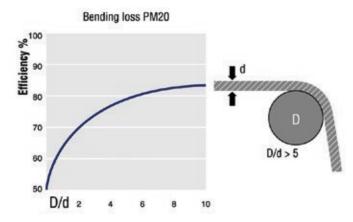




Product Code	Diameter (mm)	Break Force (Tonnes)	Max. Length app. Metres	Winchline Break Force (Tonnes)	Winchline Weight / 100m kgs	6x36 IWRC Wire Rope Grade: 1960 Break Force (tonnes)	6x36 IWRC Wire Rope Weight / 100m kgs
BRS09WAM	9	9.7	1025	9.7	4.0	5.8	33.2
BRS12WAM	12	17.5	3050	17.5	7.8	10.3	58.8
BRS14WAM	14	21.2	2250	21.2	10.5	14.0	80.2
BRS16WAM	16	26.0	1720	26.0	12.0	18.3	104.0
BRS18WAM	18	33.0	1360	33.0	17.0	23.0	132.0
BRS20WAM	20	38.8	1100	38.8	20.0	28.4	163.0
BRS22WAM	22	47.0	904	47.0	25.0	34.5	197.0
BRS24WAM	24	55.0	760	55.0	29.0	41.0	235.0
BRS26WAM	26	64.5	650	64.5	34.0	48.1	276.0
BRS32WAM	32	84.6	1189	84.6	52.0	72.9	418.0
BRS36WAM	36	106.0	939	106.0	60.0	92.2	531.0
BRS44WAM	44	157.0	629	157.0	81.0	138.0	793.0

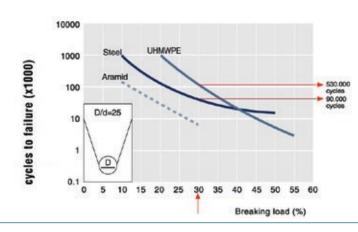
Note: Other sizes available on request.

### Rope properties; static bending

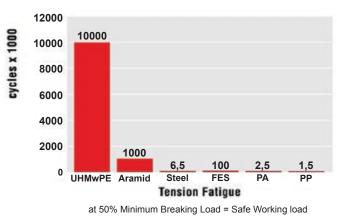




### Bending fatigue



### Rope properties; tension fatigue



## Mongoose Heavy Duty Recovery Strops

#### **DONAGHYS**

The Mongoose Heavy Duty Tow Strop is a 12 strand UHMwPE (Ultra High Molecular weight Polyethylene) tow rope designed for industrial, light vehicle and 4x4 vehicle recovery. The strop has an ultra high strength to weight ratio and is lightweight and flexible to reduce injuries and assist on-site handling on your work site.

All Mongoose Strops come fitted with a heavily protected 200mm soft eye splice in each end and feature a tight heavy duty HT Polyester cover.



Strops are available by BreakForce (tonnes).

- > 30 to 350 tonne strops supplied with fully machine braided cover to body and eyes.
- > 400 to 500 tonne strops supplied with HD Fire Hose cover to body and eyes.

#### **Features**

- > Ultra high strength to weight ratio
- > Lightweight and flexible to reduce risk of back injuries
- > Low elongation
- > Coloured pink for safety & easy identification as towing strop
- > Minimal re-coil and kinetic energy at break
- > Traceability (durable I/D tags)
- > Reduced hand injuries (no fish hooking)
- > Heavy duty tight HT Polyester cover
- > Highly resistant to wear and flex fatigue
- > 200mm soft eye splice in each end
- > Strops to 500 Tonne
- > Certified to Tonnage rating
- > Marine grade round thimble available
- > Colour coding by application, available on request.

#### **Applications**

- > Light and heavy vehicle recovery
- > 4 x 4 vehicle recovery.



#### Lightweight and Flexible





### Heavy Duty HT Polyester Body & Eyes



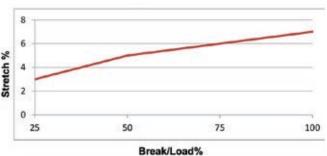


### **Mongoose Recovery Strops**

Product Code	Finished Diameter (mm)	Break Load (Tonnes)	Length (metres)	Weight of completed strop (kg)
BRY30T06	32	30	6	4.5
BRY30T10	32	30	10	7.0
BRY30T15	32	30	15	10.5
BRY30T20	32	30	20	14.0
BRY50T01	38	50	1	2.0
BRY50T03	38	50	3	4.0
BRY50T06	38	50	6	6.5
BRY50T10	38	50	10	10.0
BRY50T15	38	50	15	15.0
BRY50T20	38	50	20	20.5
BRY70T01	44	70	1	2.5
BRY70T03	44	70	3	4.5
BRY70T06	44	70	6	7.5
BRY70T10	44	70	10	13.0
BRY70T15	44	70	15	17.0
BRY70T20	44	70	20	28.0
BRY100T6	48	100	6	12.0
BRY100T10	48	100	10	15.5
BRY100T15	48	100	15	29.5
BRY100T20	48	100	20	34.0
BRY150T10	65	150	10	24.0
BRY150T20	65	150	20	47.0
BRY200T15	75	200	15	45.5
BRY300T15	82	300	15	65.0

**Note:** Other sizes and lengths made to order.

#### Stretch vs Break Load





## Mongoose Heavy Duty Recovery Strops



### **DONAGHYS**

### Gross Vehicle Weight (GVW)

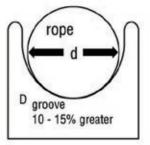
	DISTRESSED VEHICLES - GVW* HILL OR GRADIENT TOWING - GVW*			- GVW*		
Mongoose Break Force (Tonnes)	Towing from general muddy, slippery conditions	Towing from Medium bogged position in mud	Towing from Heavy to Extreme entrenched position	6" Incline 1m Gradient over 10m distance (1:10)	11° Incline 1m Graident over 6m distance (1:6)	18" Incline 1m Gradient over 4m distance (1:4)
30	60	30	20	120	64	41
50	100	50	35	201	106	68
70	140	70	50	281	148	95
100	200	100	70	401	212	135
150	300	150	100	602	318	203
200	400	200	140	803	424	271
250	500	250	170	1004	529	338
300	600	300	200	1204	635	406
350	700	350	245	1405	741	474
400	800	400	280	1606	847	541
450	900	450	315	1807	953	609
500	1000	500	350	2007	1059	676

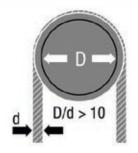
<sup>\*</sup> The weight of a vehicle in tow based in Tonnes

### Rope properties; bending fatigue

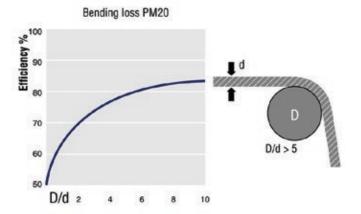


Groove material can play an important role in life

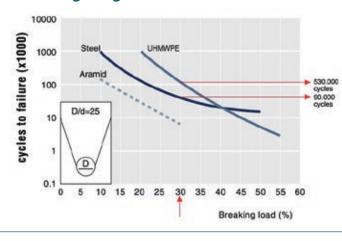




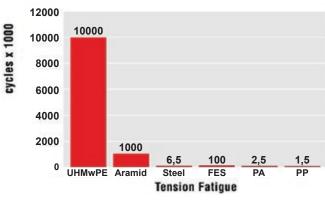
### Rope properties; static bending



### Bending fatigue



### Rope properties; tension fatigue



at 50% Minimum Breaking Load = Safe Working load

### **Mooring Rope**

#### **DONAGHYS**

Donaghys Tiger and Aquatec mooring lines are made from a blend of compatible Polyethylene (PE) and Polypropylene (PP) fibres, specially processed to combine the key features of each individual fibre to produce a multi-plait shipping rope with great strength and abrasion characteristics.

#### **Features**

- > 1.8m covered eye splice in each end
- > Good abrasion resistance
- > High strength to weight ratio
- > Shock load resistant
- > UV resistant with excellent weathering properties. (Aquatec lasts longer in direct UV due to colours being less heat sensitive)
- > Excellent splicing
- > Not affected by water
- > Floats on water
- > Kink resistant
- > Lloyds certification.

#### **Applications**

- > Mooring
- > Fishing
- > Heavy industrial
- > Oil exploration
- > Slings
- > Towing
- > Docking & Anchoring
- > Fibre rope tails.

### **Aquatec Rope**

Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	UOM
ROS40SQ	40	28.0	220	72.0	Coil
ROS48SQ	48	39.5	220	104.0	Coil
ROS56SQ	56	52.0	220	142.0	Coil
ROS64SQ	64	67.5	220	185.0	Coil
ROS72SQ	72	84.5	220	234.0	Coil
ROS80SQA	80	104.0	220	295.0	Coil

#### **Tiger Rope**

Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	MOU
ROS24TSQ	24	9.9	220	25.9	Coil
ROS32TSQ	32	16.8	220	45.9	Coil
ROS40TSQ	40	28.0	220	72.0	Coil
ROS48TSQ	48	39.5	220	104.0	Coil
ROS56TSQ	56	52.0	220	142.0	Coil
ROS64TSQ	64	67.5	220	185.0	Coil

Note: Other sizes available on request.



Aquatec/Tiger Rope is an 8 strand composite PP/PE rope.



Aquatec/Tiger Rope is an 8 strand composite PP/PE rope.









### Silver PE and Mono Rope

Silver Ropes are manufactured using a special Polyethylene (PE) extrusion process which gives the rope superior strength and a distinctive hairy appearance which enhances wear resistance and knotting performance. Silver rope is strong and versatile with excellent handling properties. It is ideally suited to general and industrial applications, particularly in the marine industries where high resistance to abrasion and floating buoyancy are advantageous.

#### **Features**

- > Tape based construction enhances strength, abrasion and handling properties
- > Monofilament based construction has been designed to meet Far North Queensland and Queensland markets as well as offering the same benefits as tape construction
- > Not affected by water
- > Resistant to fungi
- > Available in soft and medium lays for superior splicing efficiency.

#### **Applications**

- > General, industrial and marine applications
- > Truck ropes
- > Slings
- > Industrial rigging
- > Tarpaulin ties
- > Foot ropes
- > Mooring lines
- > Truck nets.

### PE Silver Rope

Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	UOM
ROS0601Q*	6	3.7	250	1.84	Coil
ROS0602*	6	3.7	250	1.84	Coil
ROS0638	6	3.7	125	1.84	Reel
ROS0808*	8	6.2	250	3.28	Coil
ROS0853*	8	6.2	250	3.28	Coil
ROS1003	10	9.4	125	4.96	Reel
ROS1006*	10	9.4	250	4.96	Coil
ROS1211*	12	12.6	250	7.20	Coil
ROS1402*	14	14.4	250	9.52	Coil
ROS1605*	16	21.2	125	12.80	Coil
ROS1607*	16	21.2	250	12.80	Coil
ROS1810*	18	25.9	125	16.12	Coil
ROS2002*	20	31.6	125	20.00	Coil
ROS2001*	20	31.6	250	20.00	Coil
ROS2413*	24	43.9	125	29.52	Coil
ROS2402*	24	43.9	125	29.52	Coil
ROS2820*	28	59.4	125	39.32	Coil
ROS3216*	32	77.7	125	52.56	Coil
ROS32AE*	32	77.7	125	52.56	Coil
ROS40AB	40	121.4	125	78.50	Coil
ROS40AC	40	121.4	125	78.50	Coil

\*Note: Mono Silver Rope stocked in QLD only, add 'Q' to end of standard codes to identify this product. \*Mono Silver Rope does not have flecks, solid white, all sizes = medium lay except QSML = 6mm soft/med lay.





### **DONAGHYS**

## Nylon Rope

Donaghys Nylon Rope is manufactured from nylon fibre, the strongest of conventional man-made fibres. This rope has good strength, high extension and recovery, easy handling, coiling and knotting along with good abrasion resistance.

Nylon rope is ideally suited to a wide range of general and industrial applications.

8 strand (Sqr Plait) constructions are mainly used in mooring applications due to their large size, high strength, and torsion resistant properties under load.

**3 Strand Range Available:** 6mm to 32mm.

#### **Features**

- > Good strength and abrasion resistance
- > Low water absorption
- > Soft feel and easy handling
- > Coils and knots well
- > High extension and recovery.

#### **Applications**

- > Slings
- > Forestry ropes
- > Anchor ropes
- > Safety lines
- > Safety nets
- > Car tow rope
- > Mooring lines.







## Nylon Rope

Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	UOM
ROS0689	6	7.5	100	2.3	Reel
ROS0612	6	7.5	250	2.3	Reel
ROS08AA	8	13.4	100	4	Reel
ROS10AA	10	20.8	100	6.2	Reel
ROS1026	10	20.8	250	6.2	Coil
ROS1236	12	30.0	100	8.9	Reel
ROS1235	12	30.0	250	8.9	Coil
ROS14AA	14	41.0	100	12.2	Reel
ROS16AD	16	53.0	100	15.8	Reel

Note: Other sizes and lengths available on request.





### **DONAGHYS**

### Polyester Rope

Donaghys Polyester Rope is manufactured from polyester fibre, the second strongest of conventional man-made fibres behind nylon. This rope has good strength, extension, easy handling, coiling and knotting along with excellent abrasion resistance.

Polyester Rope is ideally suited to a wide range of general and industrial applications, including safety lines in the Height Safety sector.

#### **Features**

- > 3 strand ropes
- > Soft feel and easy handling, coiling and knotting
- > Low stretch and excellent abrasion resistance
- > No strength loss when wet
- > Stretches up to 46% before breaking
- > Excellent shock absorption
- > Blue internal marker.

#### **Applications**

- > General purpose & Industrial
- > Theatrical rigging
- > Mooring/Docking line
- > Mast stays
- > Slings
- > Bolt ropes
- > Flat halyards
- > Lifelines & Safety lines
- > Hoist ropes
- > Lifting and tying
- > Restraints & Lashings.

## Polyester Rope - Black Med Lay

Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	UOM
ROS1085	10	16	200	7.6	Reel
ROS0612	12	23	200	11	Reel
ROS1485	14	32	100	14.8	Reel
ROS1685	16	41	100	19.5	Reel
ROS1885	18	51	100	24.5	Reel
ROS2085	20	63	100	30.3	Reel

Note: Soft lay, white and navy options available on request.







## DONAGHYS

## Sisal Rope

Donaghys Sisal Rope is a tough, versatile, natural rope used in mining, trucking and general industrial applications.

#### **Features**

- > Natural and biodegradable
- > Tough and abrasion resistant
- > Easily spliced
- > Economical
- > Non-conductive
- > Versatile
- > Excellent for knotting.

#### **Applications**

- > Mining
- > General industrial
- > Trucking
- > Rope handles
- > Barrier ropes
- > Halters and nets
- > Capstan ropes
- > Driver ropes
- > Slings.







## Sisal Rope

Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	UOM
RON0604	6	2.6	250	2.9	Reel
RON0801	8	4.8	250	5.5	Coil
RON1001	10	6.3	250	6.9	Coil
RON1203	12	9.5	250	10.6	Coil
RON1401	14	12.8	250	14.2	Coil
RON1601	16	18.0	250	19.3	Coil
RON1801*	18	21.4	250	22.3	Coil
RON2001	20	28.4	250	27.9	Coil
RON2401	24	40.6	250	40.8	Coil

Note: Larger sizes available on request. \*Denotes Soft Lay.





### **DONAGHYS**

## Manila Rope

Manila is the strongest of the natural fibres and results in hard wearing, low stretch, general purpose ropes which are superior to sisal in their resistance to weathering, fungal attack and moisture.

#### **Features**

- > Stronger and softer feel than sisal
- > Natural and biodegradable
- > 3 strand rope
- > Non conductive
- > Good abrasion resistance
- > Low stretch
- > Weather resistant
- > Resistant to fungal attack and moisture.

#### **Applications**

- > Marine
- > Shipping
- > Lifting
- > Capstan ropes
- > Driving ropes
- > Slings
- > Rope ladders
- > Cargo nets
- > Safety nets
- > Block fall ropes.







Product Code	Diameter (mm)	Break Force (Tonnes)	Length (metres)	Weight /100m kgs	UOM
RON0600	6	2.6	250	2.9	Coil
RON0800	8	4.8	250	5.5	Coil
RON1000	10	6.3	250	6.9	Coil
RON1201	12	9.5	250	10.6	Coil
RON1400	14	12.8	250	14.2	Coil
RON1600	16	18.0	250	19.3	Coil
RON1800	18	21.4	250	22.3	Coil
RON2000	20	28.4	250	27.9	Coil
RON2400	24	40.6	250	40.8	Coil

Note: Larger sizes available on request.





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